

REMARKS

Claims 1-15 and 17-31 are active in the present application. Claims 1-15 and 17-22 have been amended to remove multiple dependencies and for clarity. Claims 23-31 are new claims. Support for the new claims is found in the original claims. No new matter is added. An action on the merits and allowance of claims is solicited.

Respectfully submitted,

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IN THE CLAIMS

--1. (Amended) A polymerizable solid aliphatic polyurethane containing one or more olefinically unsaturated double bonds, said polyurethane having a very narrow melting range within the temperature range from 40 to 200°C, [which is preparable] said polyurethane derived from

- A) at least one linear aliphatic diisocyanate,
- B) at least one aliphatic compound containing at least two isocyanate-reactive functional groups and/or water, and
- C) at least one olefinically unsaturated compound containing an isocyanate-reactive functional group.

2. (Amended) The aliphatic polyurethane of claim 1, [characterized in that it]
wherein the polyurethane has a melting range from 0.5 to 10°C[, in particular from 1 to 6°C].

3. (Amended) The aliphatic polyurethane of claim 1 [or 2], [characterized in that it]
wherein the polyurethane has a sharp melting point.

4. (Amended) The aliphatic polyurethane of [one of claims 1 to 3, characterized in that it] claim 1, wherein the polyurethane has a very narrow melting range or a sharp melting point in the temperature range from 60 to 185°C.

5. (Amended) The aliphatic polyurethane of [one of claims 1 to 4, characterized in that it] claim 1, wherein the polyurethane contains terminal and/or lateral[, especially terminal,] olefinically unsaturated double bonds.

6. (Amended) The aliphatic polyurethane of claim 5, [characterized in that] wherein the olefinically unsaturated double bonds are present in (meth)acrylate, vinyl ether, vinyl ester, allyl, allyl ether and/or allyl ester groups[, preferably methacrylate and/or acrylate groups, especially acrylate groups].

7. (Amended) The aliphatic polyurethane of [one of claims 1 to 6, characterized in that] claim 1, wherein the linear aliphatic diisocyanate A) represents a monomeric diisocyanate, [and/or] an oligomeric diisocyanate, [or] a polymeric diisocyanate or mixtures thereof, derived [preparable] from

- A) at least one linear aliphatic diisocyanate and
- B) at least one aliphatic compound containing at least two isocyanate-reactive functional groups.

8. (Amended) The aliphatic polyurethane of [one of claims 1 to 7, characterized in that] claim 1, wherein the isocyanate-reactive functional groups are amino groups, thiol groups [and/or] or hydroxyl groups[, preferably amino groups and/or hydroxyl groups, particularly hydroxyl groups].

9. (Amended) The aliphatic polyurethane of claim 8, [characterized in that] wherein the aliphatic compound B) is linear.

10. (Amended) The aliphatic polyurethane of claim 9, [that] wherein the linear aliphatic compound B) is a diamine, triamine, amino alcohol containing at least one amino group and at least one hydroxyl group, diol, triol, tetrol [and/or], sugar alcohol or mixtures thereof.

11. (Amended) The aliphatic polyurethane of claim 10, [characterized in that] wherein the linear aliphatic compound B) is a low molecular weight diol, triol, [or] a tetrol, [or] a sugar alcohol having a molecular weight of from 62 to 200 daltons, [and/or] a linear aliphatic oligomeric polyesterdiol, [and/or] polymeric polyesterdiol, or [and/or] polyetherdiol [is used as linear aliphatic compound B)].

12. (Amended) The aliphatic polyurethane of [one of claims 1 to 11, characterized in that] claim 1, wherein

- (1) at least one diisocyanate A) is reacted with at least one compound C) in a molar ratio A):C) of 1:1 to give an adduct A/C) containing one isocyanate group and one olefinically unsaturated group, and then
- (2) the adduct A/C) is reacted with at least one compound B) in a molar ratio A/C):B) of x:1, wherein x is the number of the isocyanate-reactive groups in the at least one compound B), to give the aliphatic polyurethane.

13. (Amended) The aliphatic polyurethane of [one of claims 1 to 11, characterized in that] claim 1, wherein

- (1) at least one diisocyanate A) is reacted with at least one compound B) in a molar ratio A):B) of x:1, wherein x is the number of the isocyanate-reactive groups in the at least one compound B) to give the adduct A/B) containing x isocyanate groups, and then
- (2) the adduct A/B) is reacted with at least one compound C) in a molar ratio C):A/B) of x:1, wherein x is the number of the isocyanate groups in the adduct A/B) to give the aliphatic polyurethane.

14. (Amended) The aliphatic polyurethane of claim 12 [or 13, characterized in that] wherein x is a number[, in particular a whole number,] from 2 to 6.

15. (Amended) The aliphatic polyurethane of [one of claims 1 to 14, characterized in that its] claim 1, wherein the soft phase has a glass transition temperature Tg <25°C.

17. (Amended) A powder coating material curable thermally and/or curable with actinic radiation which comprises [or consists of] at least one aliphatic polyurethane according to [one of claims 1 to 15] claim 1.

18. (Amended) The powder coating material of claim 17, [characterized in that it further comprises] further comprising oligomers and/or polymers which are curable thermally and/or with actinic radiation and have a glass transition temperature Tg of more than 40°C.

19. (Amended) The powder coating material of claim 17 [or 18, characterized in that it further comprises] further comprising one or more customary coatings additives.

20. (Amended) The powder coating material of [one of claims 17 to 19, characterized in that it] claim 17, wherein the powder coating material is in the form of a powder slurry coating material.

21. (Amended) A coating [producible] derived from a powder coating material according to [one of claims 17 to 20] claim 17.

22. (Amended) Primed and unprimed substrates[, especially bodies of automobiles and commercial vehicles, industrial components, including plastics parts, packaging, coils, and electrical components, or furniture,] comprising at least one coating according to claim 20.

Claims 23-31 (New).--